

To establish *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

In the present case, all the claim limitations are not taught or suggested by Straub et al. Straub et al. reference discloses copolymers made of four components: a), b), c), and d). Component d), which is unsaturated C<sub>3</sub>-C<sub>5</sub> carboxylic acid, is required in the polymers of Straub et al. Applicants' invention does not encompass component d). The International Preliminary Examination Report (IPER) of PCT/EP 99/06059 which discusses Straub et al. (EP 0 100 890) is incorrect regarding component d). The carboxylic acid is not in formula III of the present invention since **m+n≥5** (specification, page 6, line 15). Compounds of formula III are **nonionic** monomers which would not include a carboxylic acid. Applicants include with the present response a copy of the page of the IPER with comments showing the error.

The examiner rejected claims 1-15 under 35 USC § 103(a) as being unpatentable over Potthoff-Karl et al (US 5,132,417).

The issue is whether the examiner has set forth a *prima facie* case of obviousness with Straub et al.

To establish *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Potthoff-Karl et al. reference does not establish a *prima facie* case of

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obviousness of the presently claimed invention because Potthoff-Karl et al. does not teach monoethylenically unsaturated monomer having at least one amine-containing group which is component c) of applicants' claimed polymers. Furthermore, there is no motivation or suggestion to teach the above missing element in Potthoff-Karl et al.

For the reasons expressed above, it is urged that the prior art references cited by the examiner either singly or in combination fail to anticipate or suggest the present invention as defined by the amended claims. Accordingly, a *prima facie* case of obviousness has not been established by the examiner, and the rejection under 35 USC § 103 should be withdrawn.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such account.

Respectfully submitted,  
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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)

|        |     |
|--------|-----|
| Claims | YES |
| Claims | NO  |
| Claims | YES |
| Claims | NO  |
| Claims | YES |
| Claims | NO  |

Inventive step (IS)

Industrial applicability (IA)

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## 2. Citations and explanations

~~Stramb et al~~

EP-A-0 100 890 discloses copolymers that are obtainable by radical copolymerisation of

- a) 20-75 parts of a C2-C20 alkyl acrylate (e.g. t-butylacrylate)
- b) 5-50 parts of an N-containing monomer (e.g. N-vinylpyrrolidone)
- c) 1-25 parts of a monomer containing cationic groups (e.g. N-vinylamine)
- d) 1-25 parts of a carboxylic acid (e.g. methacrylic acid).

The copolymer has a K value of from 15 to 75 and is contained in hairspray formulations at up to 4 wt.% together with 66 wt.% solvent.

\* not correct  
 $m+n \geq 5$

Since carboxylic acid proportions of up to 4 wt.% as per the application are not excluded (see page 6, formula III, n=0, R''=H, X=O), the polymers, their use and the (hair) cosmetic preparations as per Claims 1, 7, 9 and 13 are not novel (PCT Article 33(2)). Identical compositions also have identical glass temperatures, and therefore Claim 12 is also not novel even though the prior art does not indicate a glass temperature (EP-A-0 100 890; claims, page 2, lines 6-35; page 5).